



Alaska Department of Transportation and Public Facilities

Clean Water Act Consent Decree

Part III Compliance Program

2010 Annual Report

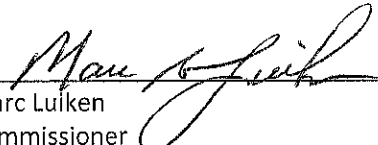
March 2011

Commissioner's Certification

I certify that in the 2010 reporting period, the Department had statewide compliance with Consent Decree paragraphs 5, 6.c, 7.a, 8.b, 8.c, and 9.

CERTIFICATION STATEMENT

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Marc Luiken
Commissioner
Alaska Dept. of Transportation and Public Facilities

24 Mar 11
[Date]

Introduction

The following Alaska Department of Transportation and Public Facilities (DOT&PF) Clean Water Act Consent Decree 2010 Annual Report is prepared in accordance with Paragraph 9.c of the Decree.

The 2010 Annual Report is contained in the attached electronic files:

- Statewide Introduction and Summary
- Northern Region 2010 Annual Report
- Central Region 2010 Annual Report
- Southeast Region 2010 Annual Report
- Public Facilities 2010 Annual Report

The 2010 Annual Report will first address items at Statewide level, including background on the Department's accomplishments, the current Alaska Certified Erosion and Sediment Control Lead (AK-CESCL) Course outline, a list of Department-sponsored AK-CESCL trainings, and an overall discussion and summary of the findings of this Report.

The Department has three Regions (Northern, Central and Southeast), and a Statewide Public Facilities Section, which separately maintain records for Active Projects under their jurisdiction. Therefore, a large portion of the 2010 Annual Report is arranged by these four functional units to address five of the seven required items. These are:

1. Annual Report of Non-Compliance with the Terms of the Consent Decree, per Paragraph 9.c.(1)
2. Annual Report of Active Projects, per Paragraph 9.c.(2)
3. Copies of modified CGP Inspection Report Form, per Paragraph 9.c.(3)
4. Copies of modified Delayed Action Item Report (DAIR) Form, per Paragraph 9.c.(4)
5. Copies of all Delayed Action Item Report Forms for all Active Projects, per Paragraph 9.c.(7)

Each Regional Director and the Chief of the Statewide Public Facilities Section have the authority for projects under their jurisdiction and have certified their Region's report.

The worksheet used to report Active Projects differs slightly in format from the Consent Decree Appendix F. The revised worksheet contains all the information listed on the worksheet in Appendix F. Kristine Karlson, NPDES Compliance officer, reviewed and approved the changes in January 2011.

Background

Transitioning into operations with Consent Decree requirements takes time because the Department's projects that were active on the day the decree became effective may have had contracts that were written several years ago. It is much more challenging to change a contract mid-stream than to write requirements into a contract from the beginning. The latter gives the contractor the chance to analyze the cost and include those in the bid.

The Department conducted training specifically on Consent Decree requirements for 238 employees prior to the effective date. The Department also hired a third-party consultant to provide detailed, day-long training on CGP and Consent Decree compliance in the field for both Department and Contractor storm water staff at eleven active projects. At some of these, as many as ten Department employees benefitted from the field training.

The Department has allocated innumerable staff hours to storm water training. The Interim Storm Water Training described in the decree was completed and launched. Currently, there are over 200 Department employees who are certified in AK-CESCL. The AK-CESCL training was revised when the CGP for Alaska was reissued on January 31, 2010. The presentation was revised where it cited specific permit part numbers. In addition, the videos in the training that show BMP installation methods were updated to include additional BMPs. Another change that improves the delivery of the program, but does not affect the curriculum, is that the AK-CESCL steering committee entered into an Educational Services Agreement with the University of Alaska. The University now administers the AK-CESCL training, with continued oversight by the steering committee. None of these revisions met the decree definition of a major modification, but they kept the training relevant and current.

The Department is committed to keeping its storm water staff current on changes in the industry. The Department sent eleven employees to the annual five-day Environmental Connection conference sponsored by the professional organization International Erosion Control Association (IECA), held in Dallas. The Department also sent four staff to an annual one-day seminar called Current Issues in Storm Water Regulation, held in Anchorage. In addition, the Department participated in a three day meeting in Denver when the Center for Environmental Excellence (an arm of the American Association of State Highway Officials) requested that one representative from each state transportation agency attend a national stormwater peer exchange and practitioners meeting.

The Department has supported its employees who want to obtain professional certification in the field of erosion control. The Certified Professional in Erosion and Sediment Control (CPESC) is a program that was founded by the Soil and Water Conservation Society and IECA over 25 years ago. It requires peer review of an applicant's experience and education, adherence to a strict code of ethics and a passing grade on a four-hour exam. Of the twenty CPESCs currently in Alaska, seven are Department employees and five of these were certified in 2010.

To enhance CGP compliance, existing Department storm water recordkeeping forms were improved, new forms were created and forms appended to the decree were formally issued. There are now fourteen forms that the contractor completes for inclusion in the SWPPP that together track CGP compliance.

The Department conducts annual ranking of transportation research proposals that the department will fund. This fall, the research advisory committee ranked a storm water study proposal as the highest priority and the researchers were then tasked with producing a detailed proposal.

Alaska Certified Erosion and Sediment Control Lead (AK-CESCL) Training

The outline of the current AK-CESCL course follows on page 4. It has not changed since the effective date of the decree.

Below is the list of the dates and locations of all DOT&PF-sponsored AK-CESCL Trainings in 2010, per Paragraph 9.c.(6). All training for 2010 occurred prior to the decree's effective date. In addition to the DOT&PF-sponsored courses, approximately twenty-one courses were offered by other entities.

Dates	Location (City)
3/9 – 3/10/2010	Fairbanks, AK
3/24 – 25/2010	Juneau, AK
4/13 – 14/2010	Anchorage, AK
5/4 – 5/2010	Fairbanks, AK
5/17 – 18/2010	Anchorage, AK
5/26 – 27/2010	Nome, AK

AK-CESCL Course Outline

Course Elements:

Module I. Erosion and Sedimentation Impacts

- A. Examples/Case studies

Module II. Erosion and Sedimentation Processes

- A. Definitions
- B. Types of erosion
- C. Sedimentation
 - 1. Basic settling concepts
 - 2. Problems with clays/turbidity

Module III. Factors Influencing Erosion Potential

- A. Soil
- B. Vegetation
- C. Topography
- D. Climate

Module IV. Alaska Climate Issues and BMPs

- A. Winter Shutdown
- B. Dormant seeding
- C. Thermal Degradation
- D. Freeze up/Breakup
- E. Permafrost
- F. High Precipitation

Module V. Regulatory Requirements

- A. DEC Wastewater Disposal General Permit – Excavation Dewatering
- B. The most current version of the Department of Environmental Conservation APDES General Permit for Storm Water Discharges from Construction Activities
- C. Federal, state, MS4, and local requirements and permits
- D. Other regulatory requirements

Module VI. Storm Water Pollution Prevention Plan (SWPPP) Elements and BMPs

- A. SWPPP is a living document – should be revised as necessary
- B. 12 Elements of a SWPPP & categories of BMPs – how to select and install BMPs
 - 1. Mark Clearing Limits
 - 2. Establish Construction Access
 - 3. Control Flow Rates
 - 4. Install Sediment Controls
 - 5. Stabilize Soils and CGP Stabilization Requirement
 - 6. Protect Slopes
 - 7. Protect Drain Inlets
 - 8. Stabilize Channels and Outlets
 - 9. Control Pollutants
 - 10. Control De-watering
 - 11. Inspect and Maintain BMPs
 - 12. Manage the Project SWPPP and related documentation, inspections, reports, revision logs, grading logs, weather logs, etc.

Module VII. Monitoring/Reporting/Recordkeeping

- A. Site inspections/visual monitoring
 - 1. CGP Inspection Frequency
 - 2. Disturbed areas
 - 2. BMPs
 - 3. Discharge locations
 - 4. Dewatering
- B. Water quality sampling/analysis
 - 1. Turbidity
 - 2. pH
 - 3. Total Maximum Daily Load (TMDL)
 - 4. Monitoring frequency set by SWPPP
- C. Adaptive Management
 - 1. When monitoring indicates problem, take appropriate action (e.g. install/maintain/change/add BMPS or contact designer/engineer/consultant etc.)
 - 2. Document the corrective action(s) in SWPPP, Revision Log and Plan sheet
- D. Site Plan/Map Grading Log
- E. Reporting
 - 1. Inspection reports/checklists
 - 2. Non-compliance notification event and/or bypass
 - 3. HAZMAT reporting
- F. Record Keeping
 - 1. Revision Log
 - 2. Grading Log
 - 3. SWPPP updates
 - 4. Figures and Plan sheets

Discussion

There are a few instances that the Department would like to recognize and explain, though they do not constitute a decree noncompliance.

There were two instances where the Department failed to file a timely Notice of Termination (NOT) for projects that were completed prior to the decree's effective date. Therefore, the projects listed below are not included in the Active Projects list for the Northern Region.

Project: Dalton Highway Deep Culvert

DOT&PF Permit #: AKR10CE98

Note: The project consisted of three culvert replacements in separate locations. Two were completed and had final stabilization in September 2009. Construction activities at the third were completed January 2010 and stabilization was initiated in May 2010 after spring break-up and had final stabilization in July 2010. However, the NOT was filed by the Department on 12/15/2010.

Project: FIA Terminal Development

DOT&PF Permit #: AKR10BQ99

Note: Final stabilization was confirmed in March 2010. However, the Department filed the NOT on 2/9/2011.

There were two instances in which a Delayed Action Item Report (DAIR) Form was inappropriately completed; one for the Central Region International Airport Road and Old Seward Highway project (Permit # AKR10DI07), and the other for the Northern Region July 2010 Flood Repairs project (Permit # AKR10DG90). The Corrective Actions were not completed by the complete-by date though it was practicable to do so. These items are listed as instances of non-compliance. Therefore, these DAIR Forms will not be included in the Report.

With regard to the decree paragraph 6.b, "BMP Manual," we do not think this requirement to reference a manual was intended for, or should apply to, permanent storm water BMPs. Permanent BMPs are designed by Department engineers and, as a part of the contract, are reviewed usually two to three times. Thus, we have included instances of non-compliance with paragraph 6.b only if it was a temporary BMP lacking a reference.

Summary

Tables 1 and 2 provide a summary of the two worksheets included in this report. As shown in Table 2, the Department had statewide compliance with Paragraphs 5, 6.a.(1), 6.a.(2), 6.a.(4), 6.c, 7.a, 7.c.(1), 7.c.(6), 7.c.(8), 7.c.(9), 8.b, 8.c, and 9. In addition, there have been no modifications to either the Inspection Report or Delayed Action Item Report forms in this reporting period.

	Active Projects	Instances of Non-Compliance
Total Statewide	72	131
Northern	30	23
Central	26	70
Southeast	08	14
Public Facilities	08	24

Table 1. The Department's total number of Active Projects and instances of non-compliance with the Consent Decree, both statewide and by Region.

Applicable Paragraph	Number of Incidences
5 - Training	
5a – Training for DOT&PF	
5b – Training for Contractors	
5c – Modification of AK-CESCL Training Program	
5d – Equivalent AK-CESCL Certification	
6 – Construction and SWPPP Requirements	
6a – SWPPP	
6a1 – SWPPP Preparer’s Name	
6a2 – DOT&PF Project Engineer SWPPP Certification	
6a3 – SWPPP Amendments	5
6a4 – Availability of SWPPP documents	
6b – BMP Manual Citations	22
6c – Seasonal Stabilization	
7 – Inspection Program	
7a – Pre-construction Inspections	
7b - Inspections	7
7c – Inspection Reports	2
7c1 – Inspection Date	
7c2 – Inspector Qualifications	23
7c3 – Scope of Inspection	8
7c4 – Weather/ Discharges since Last Inspection	21
7c5 – Weather/ Discharges during Inspection	3
7c6 – Location of Discharges	
7c7 – Location of BMP(s) Requiring Maintenance	2
7c8 – Location of BMP(s) that Failed	
7c9 – Location of Additional BMP(s) Needed	
7c10 – BMP Action Items and Complete-by Date	9
7c11 – Certification by Project Engineer and Superintendent	21
8 – Project Maintenance	
8a – Deadline for Completing Action Items	8
8b – Delayed Action Item Report	
8c – Modifications to Delayed Action Item Report	
9 – Reporting	
9a – Endangerment Reports	
9b – Notices of Intent	
9c – Annual Report	
TOTAL	131

Table 2. The Department’s total statewide instances of non-compliance with the Consent Decree by applicable paragraph.

Of the Department's total of 131 instances of non-compliance, approximately 74 (or 56 percent), are the result of simple human error and missing new requirements, and are not instances that were detrimental to water quality. In addition, these types of non-compliance are expected to decrease in the future as the Department continues to educate our staff and contractors on the importance of minimizing such mistakes and the new requirements become more familiar. The common human errors that resulted in non-compliance include providing an incorrect AK-CESCL number or expiration date, missing one or more of the required pieces of information on storm events, and overlooking boxes that need to be checked on the inspection report.

Since Paragraph 7.c.(2) of the decree requires that the AK-CESCL certification number and expiration date of the storm water inspectors be provided on the inspection report, the Department has included the instance on the attached noncompliance work sheets if either number is listed incorrectly. For example, if an inspector put the current year for their expiration date, (i.e. November 1, 2010) instead of the true expiration date (i.e. November 1, 2013), this was reported. However in all 23 cases of this type of noncompliance, the storm water inspectors held current AK-CESCL certifications while performing inspections; as previously stated, there are no instances in this reporting period of noncompliance with paragraph 5 regarding training.

Another common recordkeeping error resulting in non-compliance is missing information regarding weather or storm events on the inspection reports. This occurred 18 times; eight resulting from incomplete storm event information, six from referencing the rain log, and four from failing to provide any information. However, on Department projects, the contractor maintains a daily record of rainfall that is included in the SWPPP and much of the storm event data required could be inferred from the rain log. Therefore, the lack of some or all of the weather information on the Inspection Report does not prevent project staff from noting the occurrence of a storm event and completing Corrective Actions as appropriate. Nevertheless, since the information is not on the Inspection Report as required, the Department listed this type of omission as noncompliant with Paragraph 7.c.(4).

Three instances of noncompliance resulted from an inspector forgetting to mark a "yes" or "no" box to indicate whether a BMP is installed or whether a BMP requires action. This type of omission is understandable when the inspector may be evaluating as many as 300 BMPs across the project. It is most likely that the BMP was inspected because the inspectors develop a routine for their inspection route. It is also most likely that the BMP did not require action because, if it did, the inspector would have written an entry in the appropriate column of the report to describe the action and/or would have listed the action in the Corrective Action Log. However, since the inspection report lacks documentation for it, the Department has listed these cases as noncompliance with 7.c.(10).

This same reasoning applies for three other instances of non-compliance resulting from corrective actions being described in the Corrective Action Log but not in the inspection report. In all three cases, the described action is shown as completed in the Log, documenting that it was addressed. However, since the action was not identified in the inspection report along with a complete-by date, the inspection report lacks the required documentation. The Department, therefore, has listed these cases as noncompliance with 7.c.(10) as well.

Other recordkeeping oversights that resulted in noncompliance were for items that are not required by the CGP, and so have not been completed on Department projects in the past. Though project staff informed contractors of ongoing projects of the new requirements that would be effective immediately with the decree, it was anticipated that some non-compliance would result from missing these

requirements. These include lack of a publication citation on BMP descriptions (occurs 22 times) and the lack of an AK-CESCL approval of SWPPP amendments (occurs 5 times).